

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application ) Former Examiner: Yeung, J.  
CHANG, Ming Yu )  
 ) Group Art Unit: 3743  
Based on U.S. Patent 5,897,307 )  
Issue Date: 4/27/99 )  
Prior Serial No. 08/881,848 ) Atty Docket No.: 01-03-1627  
Prior Filing Date: 6/24/97 )  
 )  
Title: Disposable Lighter )  
Having A Safety Function of )  
Preventing Unwanted Ignition )  
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PRELIMINARY AMENDMENT WITH REMARKS PURSUANT TO 37 CFR § 1.173(c)

Hon. Commissioner for Patents  
Box REISSUE  
Washington, D.C. 20231

Sir/Madam:

Pursuant to 37 CFR 1.173, this preliminary amendment and remarks is respectfully filed with a U.S. Reissue Patent Application based on U.S. Patent No. 5,897,307 ('307 patent). The applicant brings this reissue application by reason to correct errors without any deceptive intent and by reason to that the patentee claimed less than to which he had a right, pursuant to 35 U.S.C. § 251. The applicant has assigned this '307 patent to Calico Brands, Inc. A copy of the recorded assignment from inventor Mr. Ming Yu Chang is included with the required Statement Under 37 CFR 3.73(b).

Pursuant to 37 CFR § 1.173, the applicant respectfully requests the following amendments to claims 1 and 10 and the addition of new claims 13-16.

Clean Version of Amended Claims 1 and 10:

1. (Amended) A disposable lighter, comprising:

a lighter body for receiving a liquefied fuel therein;

a mounting frame, which is sealedly affixed on top of said

5 lighter body, comprising a first and a second supporting wall  
upwardly extended from two sides of said mounting frame, said  
mounting frame further having a vertical spring chamber between  
said first and second supporting walls;

a flint spring being received in said spring chamber;

10 a gas lever being pivotally mounted between said first and second  
supporting walls;

a gas valve with a gas nozzle said gas nozzle being engaged  
with an end of said gas lever to permit release of gas from an  
interior of said lighter body via said gas valve;

an ignition device comprising a flint and a striking wheel,  
said striking wheel having a circumferential coarse striking  
surface being positioned right above and in contact with said  
flint and rotatably mounting between said first and second  
supporting walls, wherein said striking wheel further comprising  
20 two circular discs located at said two sides of said striking  
surface, each of said circular discs having a circumferential  
surface and positioned within to each of two gaps formed between  
said first and second supporting walls and said striking wheel;  
and

25 a U-shaped wind shield mounted on said first and second  
supporting walls to cover said gas nozzle and said first and

second supporting walls, said wind shield having an all around vertical U-shaped side wall which has a round end portion and two wing portion extending from said round end portion, a top wall horizontally and inwardly extending from a top side of said round  
5 end portion of said U-shaped side wall and defining a cutout right above said gas nozzle, and a first and a second L-shaped bent-edge member which are respectively and perpendicularly bent from a top side and an end side of said wing portions, wherein said first and second bent-edge members are respectively extended from said top  
10 wall along said top side and said end side of each of said wing portions for fittedly and respectively resting on a horizontal top edge and a vertical rear edge of each of said first and second supporting walls, a top end corner of each of said wing portions forming a curved corner which has a curvature matching with at least a quarter of a circumference of said striking wheel, so that said striking wheel is sidewardly covered by said two wing  
15 portions of said windshield, wherein said first and second bent-edge members of said wind shield are respectively and inwardly extended until abutting two sides of said striking wheel to form  
20 two protecting bent-edge members for better striking contact by increasing a contact area with a user's thumb.

10. (Amended) A disposable lighter, comprising:

a lighter body for receiving a liquefied fuel therein;  
25 a mounting frame, which is sealedly affixed on top of said lighter body, comprising a first and a second supporting wall integrally,

parallely, vertically, and upwardly extended from two sides of  
said mounting frame, said mounting frame further having a vertical  
spring chamber between said first and second supporting walls;  
a flint spring being received in said spring chamber;

5 a gas lever being pivotally mounted between said first and  
second supporting walls and having a central cutout to allow said  
spring penetrating therethrough to insert into said spring  
chamber, said gas lever further integrally providing a thumb  
pusher at one end thereof;

10 a gas valve with a gas nozzle extending upwards above said  
mounting frame being installed inside said mounting frame, said  
gas nozzle being engaged with another end of said gas lever, so  
that when said thumb pusher is pushed downwardly, said another end  
of said gas lever lifts said gas nozzle to release gas from an  
15 interior of said lighter body via said gas valve;  
an ignition device comprising a flint and a striking wheel,  
wherein said flint is supported on top of said flint spring with a  
bottom portion thereof inserting into said spring chamber, said  
striking wheel which has a circumferential coarse striking surface  
20 being positioned right above said flint by rotatably mounting  
between said first and second supporting walls, so that said flint  
is pressed downwardly by said circumferential coarse striking  
surface of said striking wheel, and that said flint is relatively  
pressed by said flint spring upwards to urge against said  
25 circumferential coarse striking surface of said striking wheel,  
said circumferential coarse striking surface having a width

slightly larger than a diameter of said flint, wherein said striking wheel further comprises two circular discs integrally formed at said two sides of said striking wheel, each of said circular discs having a circumferential surface and a width equal to two gaps formed between said first and second supporting walls and said striking wheel, said circular discs each having a diameter equal to that of said striking wheel so as to fill said two gaps respectively; and

a U-shaped wind shield mounted on said first and second supporting walls to cover said gas nozzle and said first and second supporting walls, said wind shield having an all around vertical U-shaped side wall which has a round end portion and two wing portion extending from said round end portion, a top wall horizontally and inwardly extending from a top side of said round end portion of said U-shaped side wall and defining a cutout right above said gas nozzle, and a first and a second L-shaped bent-edge member which are respectively and perpendicularly bent from a top side and an end side of said wing portions, wherein said first and second bent-edge members are respectively extended from said top wall along said top side and said end side of each of said wing portions for fittedly and respectively resting on a horizontal top edge and a vertical rear edge of each of said first and second supporting walls, a top end corner of each of said wing portions forming a curved corner which has a curvature matching with at least a quarter of a circumference of said striking wheel, so that said striking wheel is sidewardly covered by said two wing

portions of said windshield.

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Marked Up Version of Amended Claims 1 and 10:

1. (Amended) A disposable lighter, comprising:

a lighter body for receiving a liquefied fuel therein;

a mounting frame, which is sealedly affixed on top of said

5 lighter body, comprising a first and a second supporting wall  
[integrally, parallelly, vertically, and] upwardly extended from  
two sides of said mounting frame, said mounting frame further  
having a vertical spring chamber between said first and second  
supporting walls;

10 a flint spring being received in said spring chamber;

a gas lever being pivotally mounted between said first and second  
supporting walls [and having a central cutout to allow said spring  
penetrating therethrough to insert into said spring chamber, said  
gas lever further integrally providing a thumb pusher at one end  
thereof];

20 a gas valve with a gas nozzle [extending upwards above said  
mounting frame being installed inside said mounting frame,] said  
gas nozzle being engaged with [another] an end of said gas lever[,  
so that when said thumb pusher is pushed downwardly, said another  
end of said gas lever lifts said gas nozzle] to permit release of  
gas from an interior of said lighter body via said gas valve;

25 an ignition device comprising a flint and a striking wheel,  
[wherein said flint is supported on top of said flint spring with  
a bottom portion thereof inserting into said spring chamber,] said  
striking wheel [which has] having a circumferential coarse  
striking surface being positioned right above and in contact with

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said flint [by] and rotatably mounting between said first and  
second supporting walls, [so that said flint is pressed downwardly  
by said circumferential coarse striking surface of said striking  
wheel, and that said flint is relatively pressed by said flint  
5 spring upwards to urge against said circumferential coarse  
striking surface of said striking wheel, said circumferential  
coarse striking surface having a width slightly larger than a  
diameter of said flint,] wherein said striking wheel further  
[comprises] comprising two circular discs [integrally formed]  
10 located at said two sides of said striking [wheel] surface, each  
of said circular discs having a [glossy] circumferential surface  
and [a width equal] positioned within to each of [said] two gaps  
formed between said first and second supporting walls and said  
striking wheel; and

15 a U-shaped wind shield mounted on said first and second  
supporting walls to cover said gas nozzle and said first and  
second supporting walls, said wind shield having an all around  
vertical U-shaped side wall which has a round end portion and two  
wing portion extending from said round end portion, a top wall  
20 horizontally and inwardly extending from a top side of said round  
end portion of said U-shaped side wall and defining a cutout right  
above said gas nozzle, and a first and a second L-shaped bent-edge  
member which are respectively and perpendicularly bent from a top  
side and an end side of said wing portions, wherein said first and  
25 second bent-edge members are respectively extended from said top  
wall along said top side and said end side of each of said wing



portions for fittedly and respectively resting on a horizontal top edge and a vertical rear edge of each of said first and second supporting walls, a top end corner of each of said wing portions forming a curved corner which has a curvature matching with at least a quarter of a circumference of said striking wheel, so that said striking wheel is sidewardly covered by said two wing portions of said windshield, wherein said first and second bent-edge members of said wind shield are respectively and inwardly extended until abutting two sides of said striking wheel to form two protecting bent-edge members [in order to cover two gaps formed between said striking wheel and said first and second supporting walls] for better striking contact by increasing a contact area with a user's thumb.

10. (Amended) A disposable lighter, comprising:

a lighter body for receiving a liquefied fuel therein;  
a mounting frame, which is sealedly affixed on top of said lighter body, comprising a first and a second supporting wall integrally, parallelly, vertically, and upwardly extended from two sides of said mounting frame, said mounting frame further having a vertical spring chamber between said first and second supporting walls;  
a flint spring being received in said spring chamber;

a gas lever being pivotally mounted between said first and second supporting walls and having a central cutout to allow said spring penetrating therethrough to insert into said spring chamber, said gas lever further integrally providing a thumb

pusher at one end thereof;

a gas valve with a gas nozzle extending upwards above said mounting frame being installed inside said mounting frame, said gas nozzle being engaged with another end of said gas lever, so that when said thumb pusher is pushed downwardly, said another end of said gas lever lifts said gas nozzle to release gas from an interior of said lighter body via said gas valve;

an ignition device comprising a flint and a striking wheel, wherein said flint is supported on top of said flint spring with a bottom portion thereof inserting into said spring chamber, said striking wheel which has a circumferential coarse striking surface being positioned right above said flint by rotatably mounting between said first and second supporting walls, so that said flint is pressed downwardly by said circumferential coarse striking surface of said striking wheel, and that said flint is relatively pressed by said flint spring upwards to urge against said circumferential coarse striking surface of said striking wheel, said circumferential coarse striking surface having a width slightly larger than a diameter of said flint, wherein said striking wheel further comprises two circular discs integrally formed at said two sides of said striking wheel, each of said circular discs having a [glossy] circumferential surface and a width equal to two gaps formed between said first and second supporting walls and said striking wheel, said circular discs each having a diameter equal to that of said striking wheel so as to fill said two gaps respectively; and

a U-shaped wind shield mounted on said first and second supporting walls to cover said gas nozzle and said first and second supporting walls, said wind shield having an all around vertical U-shaped side wall which has a round end portion and two wing portion extending from said round end portion, a top wall horizontally and inwardly extending from a top side of said round end portion of said U-shaped side wall and defining a cutout right above said gas nozzle, and a first and a second L-shaped bent-edge member which are respectively and perpendicularly bent from a top side and an end side of said wing portions, wherein said first and second bent-edge members are respectively extended from said top wall along said top side and said end side of each of said wing portions for fittedly and respectively resting on a horizontal top edge and a vertical rear edge of each of said first and second supporting walls, a top end corner of each of said wing portions forming a curved corner which has a curvature matching with at least a quarter of a circumference of said striking wheel, so that said striking wheel is sidewardly covered by said two wing portions of said windshield.

Please add the following new claims 13 to 16:

13. A disposable lighter, comprising:

a lighter body for receiving a liquefied fuel therein;

5 a mounting frame, which is sealedly affixed on top of said lighter body, comprising a first and a second supporting wall upwardly extended from two sides of said mounting frame, said mounting frame further having a vertical spring chamber between said first and second supporting walls;

a flint spring being received in said spring chamber;

10 a gas lever being pivotally mounted between said first and second supporting walls;

a gas valve with a gas nozzle, said gas nozzle being engaged with an end of said gas lever to permit release of gas from an interior of said lighter body via said gas valve;

15 an ignition device comprising a flint and a striking wheel, said striking wheel having a circumferential coarse striking surface being positioned right above and in contact with said flint and rotatably mounting between said first and second supporting walls, wherein said striking wheel further comprising  
20 two circular discs located at said two sides of said striking surface, each of said circular discs having a circumferential surface and positioned within to each of two gaps formed between said first and second supporting walls and said striking wheel;  
and

25 a U-shaped wind shield extends over said first and second supporting walls to cover said gas nozzle and said first and

second supporting walls, said wind shield having an all around vertical U-shaped side wall which has a round end portion and two wing portions extending from said round end portion, and a first and a second L-shaped bent-edge members which are respectively and perpendicularly bent from a top side and an end side of said wing portions, said striking surface at an elevation lower than said bent-edge members, wherein said first and second bent-edge members are respectively extended from said top wall along said top side and said end side of each of said wing portions, a top end corner of each of said wing portions forming a curved corner which has a curvature matching with at least a quarter of a circumference of said striking wheel, so that said striking wheel is sidewardly covered by said two wing portions of said windshield, wherein said first and second bent-edge members of said windshield are inwardly extended to form two protecting bent-edge members for better striking contact by increasing a contact area with a user's thumb.

14. A disposable lighter, as recited in claim 13, wherein each of said circular discs has a diameter equal to that of said striking wheel.

15. A disposable lighter, as recited in claim 13, wherein each of said circular disc has a diameter smaller than that of said striking wheel to form a supporting disc.

16. A disposable lighter, as recited in claim 13, wherein

each of said circular discs has a diameter larger than that of  
said striking wheel.

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TO BE REPRODUCED  
IN FULL

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## REMARKS

Pursuant to 37 CFR § 1.173(c) and the requirement for status of claims and support for claim changes, the applicant provides these remarks for the amendments to claims 1 and 10 and the new 5 claims 13-16. These amendments and new claims are based on the specification, claims, and drawings of U.S. Patent No. 5,897,307; no new matter has been added.

### Specific Remarks for Amendments to Claim 1:

10 The applicant has amended claim 1 to correct errors and to broaden the claim, pursuant to 35 U.S.C. § 251. No new matter has been added.

The antecedent basis for the amendments to line 6 of claim 1 can be found in Figs. 2 and 4.

15 The antecedent basis for the amendments to lines 12-15 of claim 1 can be found in Figs. 2 and 5.

The antecedent basis for the amendments to lines 16-22 of claim 1 can be found in Figs. 2 and 5 and in the specification of the issued U.S. Patent, column 4, lines 20-25.

20 The antecedent basis for the amendments to lines 23-26 and lines 1-9 (page 3 of amendment) of claim 1 can be found in Figs. 2-7.

The antecedent basis for the amendments to lines 10-15 (page 3 of amendment) of claim 1 can be found in Figs. 2-4 and in the 25 specification of the issued U.S. Patent, column 5, lines 25-40.

The antecedent basis for the amendments to lines 10-14 (page

4 of amendment) of claim 1 can be found in Figs. 2-4. The  
applicant has deleted lines 10-14 in order to have consistency  
with lines 7-14 on page 8 of the amendment for claim 1 regarding  
the circular discs being positioned within each of said two gaps  
5 (see Figs. 2-4).


Specific Remarks for Amendments to Claim 10:

The applicant has amended claim 10 to correct errors and to  
broaden the claim, pursuant to 35 U.S.C. § 251. No new matter has  
10 been added. The antecedent basis for the amendments to line 23  
(page 5 of amendment) of claim 10 can be found in Figs. 2-4.

The applicant has provided new claims 13-16. The antecedent  
basis for these claims are in Figs. 2-4 and columns 4 and 5 of the  
issued patent. If any additional fees are required as a result of  
this amendment, the Commissioner is hereby authorized to charge  
such fees to Deposit Account No. 500703.

Respectfully Submitted,

TROJAN LAW OFFICES  
By

  
David Hong  
Reg. No. 45,704

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TROJAN LAW OFFICES  
9250 Wilshire Blvd., Suite 325  
Beverly Hills, CA 90212  
Tel: (310) 777-8399  
Fax: (310) 777-8348